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<210> 553

<211> 58

<212> PRT

<213> Homo sapiens

<400> 553

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Val Leu Asn Ser Gln Ala Thr Asp Ser Tyr Gln Ser Thr Asp Tyr Tyr
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Glu Pro His His Thr Gly Gly Gly Glu His
50 55

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<210> 554
<211> 59
<212> PRT
<213> Homo sapiens
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Met Leu His Gly Gln Gly Leu Ala Leu Leu Ser Pro Thr Asn Leu Pro
      35                      40                      45

Glu Ile Leu Arg Phe Leu Phe Asn Gly Phe Leu
      50                      55

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<213> Homo sapiens
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 Thr Ala Gln Gly Ser Ile Gln Asp Ile Lys Val Pro His Ser Ile Asp
 35 40 45
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 Ser Asp Pro Leu Gln Leu Leu
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<210> 556  
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<212> PRT  
<213> Homo sapiens
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400> 556
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Arg Gln Ala Lys Glu Ala Ser Pro Val Leu Thr Ala Thr Arg His Gly
 35 40 45
Ser Tyr Tyr Ser Leu Asn Ser Ala Ser Thr Gln Ile Ser Asp Asn Ile

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Arg Asn Ser Leu Glu His Glu Pro Cys Cys Glu Leu Pro Ile Arg Arg		
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Ile

<210> 557
 <211> 54
 <212> PRT
 <213> Homo sapiens

<400> 557
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Glu Gln Ala Tyr Leu Ile Ser Ala Arg Glu Lys Thr Asn Asn Gly Leu
20 25 30

Lys Gly Ser Leu Thr Met Lys Val Ser Ala Asn Ser Trp Leu Arg Cys
35 40 45

Gly Phe His Ile Arg Phe
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 <212> PRT
 <213> Homo sapiens

<220>
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 <222> (1)...(77)
 <223> Xaa ~ Any amino acid

<400> 558
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Ile Tyr Phe Thr Asn Leu Thr Ser Cys Leu Ser Val Gln Asn Gln Thr
20 25 30

Phe Thr Cys Thr Lys Arg His Lys His Leu Gln Cys Ser Ser Val His
35 40 45

Leu Cys Lys Ile Pro Pro Arg Leu Lys Gly Arg Asp Lys Lys Lys Lys
50 55 60

Pro Ser Tyr Leu Ser Gly Val Leu His Ser Arg Ser Tyr
65 70 75

<210> 559
 <211> 50
 <212> PRT

<213> Homo sapiens

<400> 589

Thr Leu Pro Pro Leu Arg Ser Val Ile Thr Leu Glu Thr His Trp Ser
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Thr Asn Pro Val Val Asn Cys Leu Ser Glu Gly Ser Arg Leu Cys Ala
20 25 30

Ser Tyr Glu Asn Leu Met Pro Asp Asp Leu Ser Leu Ser His Phe Ala
35 40 45

Pro Arg
50

<210> 360

△222△ 88

<212> PAT

<213> Homo sapiens

<400> 560

Ile Gly Ser Leu Lys Gly Pro Thr Thr Ala Gly Ser His Cys Ser Gly
5 10 15

Glu Gly Ser Tyr Gly Thr Phe Tyr Cys Pro Arg Phe Tyr Thr Gly Tyr
20 25 30

Lys Gly Ala Ser Gln Tyr Arg Ser Gly Ser Lys Gln Glu Glu Thr Asn
35 40 45

Thr Asp Leu Phe Leu Pro Pro Leu
50 55

(210) 363

<211> 57

<212> PRT

<213> Homo sapiens

<226>

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<222> (1) . . . (57)

<223> Xaa = Any amino acid

<408> 561

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Gly Leu Lys Ser Pro Glu Ile Lys Asn Pro Ala Pro Thr Gly Thr Ser
20 25 30

Asn Leu Ser Cys Phe Leu Ser Xaa Phe Trp Leu Met Gln Gly Thr Asn
35 40 45

Ser Leu Pro Arg Glu Asn Tyr Leu Asn
50 55

<210> 562
 <211> 59
 <212> PRT
 <213> Homo sapiens

<220>
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 <222> {1}...{59}
 <223> Xaa = Any amino acid

<400> 562
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 Ala Pro Met His Gly Ile Lys Asn Ser Ile Thr Ser Leu Ile Phe Leu
 20 25 30
 Ile Ser Tyr Leu Xaa Leu Glu Met Ser Ser Leu Ser Glu Ser Leu Val
 35 40 45
 Leu Ser Ser Gly Asp Tyr Val Leu Asp Thr Pro
 50 55

<210> 563
 <211> 79
 <212> PRT
 <213> Homo sapiens

<400> 563
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 Lys Gln Gln Pro Pro Ala Leu Ala Pro Gly His Pro Asp Phe Ile His
 20 25 30
 Thr Gln Asn Glu Gln Ile Asp Pro Ser Pro His Ile Gln Asn Leu Met
 35 40 45
 Trp Asn Pro His Leu Ser Gln Glu Leu Ala Glu Thr Phe Met Val Arg
 50 55 60
 Asp Pro Leu Arg Pro Leu Leu Val Phe Ser Leu Ala Asp Ile Arg
 65 70 75

<210> 564
 <211> 64
 <212> PRT
 <213> Homo sapiens

<400> 564
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 Glu Arg Asp Gln Cys Leu Phe Leu Leu Leu Cys Tyr Gln Ile Tyr Thr
 20 25 30

Val Arg His Leu Tyr Ile Leu Tyr Arg Thr Leu Gly Ser Arg Lys Ser
35 40 45

His Met Asn Leu Pro Leu Ser Ser Gly Ser Gln Leu Trp Leu Ala Pro
50 55 60

<210> 565

<211> 57

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> (1)...(57)

<223> Xaa = Any amino acid

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20 25 30

Asn Ile Asp Val Ser Ser Gln Asp Leu Ser Gly Gln Thr Ala Arg Glu
35 40 45

Tyr Ala Val Ser Ser Xaa His Asn Val
50 55

<210> 566

<211> 55

<212> PRT

<213> Homo sapiens

<400> 566

Ile Leu Leu Glu Phe Phe Arg Asn Gln Arg Gly Ser Leu Asn Pro Arg
5 10 15

Lys Thr Val Pro Phe Ile Lys Ser Glu Gly Gly Glu Lys Lys Gly His
20 25 30

Cys Asn His Ser Val Val Ser Ile Asp Ser Ala Ala Ala Leu Leu Pro
35 40 45

Leu Lys Leu Val Leu Leu Pro
50 55

<210> 567

<211> 51

<212> PRT

<213> Homo sapiens

<400> 567

Tyr Ser Asp Phe Asp Val Phe Cys Ser His Thr Tyr Gly Tyr Met Leu

5 10 15
 Ser His Cys Ser Gln Ser Ser Ser Pro Leu Leu Trp Pro Leu Gly Ile
 20 25 30
 Leu Thr Leu Ser Thr His Lys Met Ser Lys Leu Thr Leu Pro Pro Ile
 35 40 45
 Phe Arg Thr
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<210> 568
 <211> 75
 <212> PRT
 <213> Homo sapiens

<400> 568
 Lys Val Gly Glu Tyr Ile Leu Gln Ser Leu Leu Arg Ile Arg Lys Ile
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 Tyr Val Ala Phe Asn Ser Val Pro Ser Thr Cys Leu Leu Ala Ser Leu
 20 25 30
 Thr Glu Thr Pro Val Thr Thr Ile Leu Thr His Ile Ile Asn Leu Thr
 35 40 45
 Cys Phe Gln His Ala Glu Ser Ser Tyr Leu Phe Tyr Pro Leu Ala Asp
 50 55 60
 Phe Leu Leu Gln His Ile Ser Leu Gly Lys Leu
 65 70 75

<210> 569
 <211> 4809
 <212> DNA
 <213> Homo sapiens

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<210> 570

<211> 951

<212> DNA

<213> Homo sapiens

<400> 570

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<210> 571

<211> 619

<212> DNA

<213> Homo sapiens

<400> 571

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aaataacaaa acaaacaaac aaacacagaga gattttgct 819

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<210> 572

<211> 203

<212> DNA

<213> Homo sapiens

<400> 572

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cgcacgtgtg ctggaattcg cccttagctc ggatccacta gtccagtgtg gtggaattcc 120
 atttgtgttg gcccaacaca atggagccac cacatccagc ctgccacata cttttaaaact 180
 atcaggtctc atgagaactc atg 203

<210> 573

<211> 132

<212> PRT

<213> Homo sapiens

<400> 573

Met Val Glu Gly Glu Gly Glu Ala Arg His Val Leu His Gly Gly Arg
5 10 15

Arg Glu Arg Val Arg Gly Glu Thr Ala Thr Asn Phe Phe Phe Leu Arg
20 23 30

Gln Glu Ser Gly Pro Val Ala Gln Ala Gly Val Gln Trp His Asp Leu
35 40 45

Ser Ser Leu Gln Pro Leu Pro His Arg Phe Lys Gln Phe Ser Cys Leu
50 55 60

Ser Leu Pro His Ser Trp Asp His Arg Tyr Ala Pro Pro His Leu Ala
65 70 75 80

Asn Phe Cys Ser Phe Ser Arg Asp Gly Val Ser Leu Cys Cys Ser Gly
85 90 95

Trp Ser Lys Thr Pro Gly Leu Gln Glu Ser Ala Cys Leu Gly Leu Pro
100 105 110

Lys Cys Trp Gly Tyr Arg His Lys Pro Pro His Pro Ala Cys His Ile
115 120 125

Lex Lau Aen Tyr
130

<210> 574

2113 32

<212> PRT

<213> Homo sapiens

<400> 574

Met Thr His Ser Ser Ala Trp Leu Glu Arg Pro Gln Glu Thr Tyr Asn
5 10 15

His Gly Gly Arg Arg Arg Gly Ser Lys Ala Arg Leu Thr Trp Trp Gln
20 25 30

Glu Arg Thr Ser Glu Gly Gly Asp Cys His Lys Leu Phe Phe Phe Glu
35 40 45

Thr Arg Val Trp Pro Cys Cys Pro Gly Trp Ser Ala Val Ala
50 55 60

<210> 575

<211> 76
 <212> PRT
 <213> Homo sapiens

<400> 575
 Met Val Lys Ser Arg Phe Thr Lys Asn Thr Lys Ile Thr Gln Ala Trp
 5 10 15
 Trp Arg Ala Pro Val Ile Pro Gly Thr Arg Glu Ala Glu Gly Gly Glu
 20 25 30
 Ser Leu Glu Pro Gly Arg Leu Arg Glu Glu Asn Arg Leu Asn Pro Gly
 35 40 45
 Gly Arg Gly Cys Ser Glu Pro Arg Ser Cys Cys Cys Thr Pro Ala Trp
 50 55 60
 Ser Thr Glu Gln Asp Ser Ala Ser Lys Thr Asn Lys
 65 70 75

<210> 576
 <211> 68
 <212> PRT
 <213> Homo sapiens

<220>
 <221> VARIANT
 <222> (1)...(68)
 <223> Xaa = Any Amino Acid

<400> 576
 Met Leu Gly Lys Ser Arg Ala Val Cys Leu Pro Ser Thr Thr Val Thr
 5 10 15
 Thr Val Cys Tyr Leu Ala Ser Ser Ser Ala Ser Arg Glu Thr Ala Thr
 20 25 30
 Arg Gln Ala Pro Gly Asn Trp Lys Met Xaa Ser Lys Cys His Ala Gln
 35 40 45
 Leu Leu Phe Thr Phe Tyr Leu Asn His Phe Tyr Gln Ile Arg Leu Asn
 50 55 60
 Pro Gly Tyr Ser
 65

<210> 577
 <211> 57
 <212> PRT
 <213> Homo sapiens

<400> 577
 Met Tyr Leu Glu Asn Ser Phe Tyr Cys Gln Met Ile Leu Leu Lys Arg
 5 10 15
 Cys Arg Leu Ser Lys Ile Ser Thr Gln Arg Val Val Pro Asp Gly Pro

20					25			30							
Pro	Ala	Pro	Val	Pro	Gly	Ser	Phe	Pro	Met	Phe	Pro	Arg	Phe	Gly	Phe
			35				40					45			

Arg Leu Ala Pro Pro Ala Asp Thr Pro
50 55

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<210> 576
<211> 51
<212> PRT
<213> Homo sapiens
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<400> 578
Met Gln Leu Ile Tyr Leu Cys Phe Leu Gly Leu Leu Tyr Ile Arg His
5 10 15

His Asp Ser Gln Ser Phe Val Ile Leu Tyr Tyr Lys Lys Leu Asn Tyr
20 25 30

Tyr Phe Lys Tyr Gly Gln Ile Arg Ala Phe His Ile Ala Lys Val Tyr
35 40 45

Gln Pro His
50

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<210> 579
<211> 56
<212> PRT
<213> Homo sapiens
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<400> 579
Met His Phe Thr Phe Met Gln Leu Ile Tyr Leu Cys Phe Leu Gly Leu
5 10 15

Leu Tyr Ile Arg His His Asp Ser Gln Ser Phe Val Ile Leu Tyr Tyr
20 25 30

Lys Lys Leu Asn Tyr Tyr Phe Lys Tyr Gly Glu Ile Arg Ala Phe His
35 40 45

Ile Ala Lys Val Tyr Gln Pro His
50 55

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<210> 580
<211> 67
<212> PRT
<213> Homo sapiens
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<400> 380
Met Glu Leu Arg Thr Lys Ala Leu Arg Thr Ala Gln Gln Leu Thr Ser
5 10 15

Cys Val Thr Ala Leu Lys Ala Ala Gly Pro Pro Leu Thr Phe Trp Lys
20 25 30

Gly Lys Trp Val Gln Cys Cys Leu Pro Leu Trp Gly Leu Leu Gly Ser
35 40 45

His Ala Phe Tyr Ile Tyr Ala Val Asp Ile Phe Met Phe Pro Gly Ser
50 55 60

Phe Ile His
65

<210> 581

<211> 77

<212> PRT

<213> Homo sapiens

<400> 581

Met Leu Glu Val Lys Phe Glu Val Ser Leu Arg Pro Thr Gly Asn Glu
5 10 15

Thr Ala Gly Gln Thr His Gly Thr Gln Asp Lys Gly Ser Lys Asp Ser
20 25 30

Thr Ala Ala Asp Ile Leu Cys Asp Ser Leu Glu Ser Ser Arg Pro Ala
35 40 45

Ala His Ile Leu Glu Gly Lys Met Gly Thr Met Leu Ser Ala Thr Leu
50 55 60

Gly Pro Ser Trp Val Thr Cys Ile Leu His Leu Cys Ser
65 70 75

<210> 582

<211> 51

<212> PRT

<213> Homo sapiens

<400> 582

Met Leu Phe Leu Gln Thr Ile Asp Thr Lys Cys Thr Gly Ile Glu Ile
5 10 15

Asn Arg Asn Trp Ser Lys Val Trp His Thr His Ser His Val Asp Val
20 25 30

Lys Leu Cys Leu Glu Phe Leu Cys Gly Val Trp Phe Gly Leu Gly Phe
35 40 45

Leu Gly Val
50

<210> 583

<211> 60

<212> PRT

<213> Homo sapiens

<400> 583

Met Ser Thr Ser Asp Gly Phe Ala Pro Pro Pro Gln Leu Gly Ser Arg
5 10 15

Cys Ser His Ile Arg Gly Pro Ile Lys Ile Ala Arg Asn Lys Phe Pro
20 25 30

Arg Thr Leu Thr Ser Gln Glu Leu Arg Arg Phe Ala Glu Tyr Ser Gly
35 40 45

Met Met Phe Gly Asp Gln Thr Thr Ala Gly Gln Lys
50 55 60

<210> 5B4

211 76

<212> PRT

<213> Some sections

<400> 584

Met Cys Leu Cys Ile Pro Leu Gly Gly Tyr Gln Glu Leu Cys His Cys
5 10 15

Met Ser Thr Ser Asp Gly Phe Ala Pro Pro Pro Gln Leu Gly Ser Arg
20 25 30

Cys Ser His Ile Arg Gly Pro Ile Lys Ile Ala Arg Asn Lys Phe Pro
35 40 45

Arg Thr Leu Thr Ser Gln Glu Leu Arg Arg Phe Ala Glu Tyr Ser Gly
50 55 60

Met Met Phe Gly Asp Gln Thr Thr Ala Gly Gln Lys
68 70 75

<210> 585

△△△△△

<212> PRT

<213> Homo sapiens

<400> 585

Met Val Tyr Arg Phe Gly Gln Met Ser Asp Asn Pro Phe Tyr Ile Leu
5 10 15

Ala Ser Leu Gly Ser Ser Ser Cys Arg Asn Gly Leu Ala Ser Lys Trp
20 25 30

Arg Gln Ala Asp Pro Ser Asp Gly Tyr Met Glu Pro Cys Phe Gln Leu
35 40 45

Leu Phe
50

<210> 586

<211> 80

<212> PST

<213> Homo sapiens

400 586

Met Leu Val His Ile Tyr Ser Cys Cys Gly Met Val Tyr Arg Phe Gly
5 10 15

Gln Met Ser Asp Asn Pro Phe Tyr Ile Leu Ala Ser Leu Gly Ser Ser
20 23 30

Ser Cys Arg Asn Gly Leu Ala Ser Lys Trp Arg Gln Ala Asp Pro Ser
35 40 45

Asp Gly Tyr Met Glu Pro Cys Phe Gln Leu Leu Phe
50 55 60

<210> 587

<211> 1408

<212> DNA

<213> Homo sapiens

<400> 587

ctggacactt	tgcagagggt	tttctgtggt	gctgctgctg	ccctgtatgc	tactcatgt	60
agcccgccat	gtgaagctgt	ctgtgttttc	tacactcttta	agtgaactgc	aaacggccaa	120
cggctggcag	tgcctctgggt	ctatttgacc	agaaatgat	ctctctctct	gtgacaccaa	180
ccactgtaaa	tktgatgggg	aatgtttaa	aattggagac	actgtgactg	gcgtctgtgc	240
tttcaatggc	aaacaatgat	actgtgcctt	gtgtggctcc	aatggggaga	gtctacagaa	300
tgaagtgtac	ctgcacagg	ctgcattgca	acacgaagct	gagatactgt	tgtgtctcga	360
aggatcatgt	gocacagatg	caggatcagg	actctggagat	ggagtcatgt	aaggctctgg	420
agaacactagt	caaaaggaga	ctacacacgt	tgaattttgc	ctacttgggt	gacaaatgtga	480
cgaagatccg	gaggaattgt	gtgtgtgtgt	taataattgt	tgtctctaaa	ccaacttcga	540
tcctccttgc	gtctctgagt	ggaaattcta	tgtaatgtca	tgcocaatat	aagaagattgc	600
gtgtcgaaaa	cagggaaaaa	ttagaactcat	gtctttgggt	cgatgtcaag	ataacacac	660
tacaactcat	aagtctgaga	atgggtcata	tgcagaacaa	gattatgcag	agaatgtcaa	720
aaattagaaa	gaaagtgtca	gagaacacca	cataccttgt	ccggacactt	acaatggctt	780
ctgcattgat	gggaaggtgt	agccttttat	caattctcag	gagacctctt	gcaggtgtgc	840
ttctggttat	acttgacaca	actgttgaaa	aaaggactac	agtgcttgac	agttgtttcc	900
cggtctctga	cgatttcatg	atgtcttaat	cgcagctgtg	atttggaaca	ttcagattgc	960
ttctcatctgt	gtgtgtgttc	tctgtacac	aaggaaatgc	ccogaagaac	acagaattcca	1020
ccagacagag	caaaatacag	ggcactacag	ttcagacaat	aaacacagag	cgctccagag	1080
gttaacttaa	agggagcatg	tttcaacagt	ctgtgactac	cgagagctgt	gactacaaaa	1140
tacagtatta	tagacaaaag	aataagacaa	gagattacac	catgttgtct	gtcattttgt	1200
gtaatctaat	cccatgtaaa	catgtactac	agctataatt	gattattatt	ggatataatt	1260
gaatatagat	acaattgtct	gatgttttt	ctgtaatgta	aataaatcat	ttatatcata	1320
caataawggt	ttttttttcc	catgtatttt	ttatatataa	taaatatcta	gtgatgacaa	1380
aaaaaaaata	aaaaaaaata	rwwgacc				1408

<210> 588

<211> 83

<212> PRT

<213> Homo sapiens

<400> 588

Met Pro Gln Lys Gln Gln Asn Ser Gln Thr Glu Ala Lys Tyr Arg Ala
5 10 15

Leu Gln Phe Arg Gln Tyr Asn Lys Ser Val His Glu Val Asn Leu Lys
20 25 30

Gly Ala Cys Phe Thr Val Ala Gly Leu Pro Arg Ala Trp Thr Thr Gln
 35 40 45
 Tyr Ser Ile Ile Asp Lys Arg Ile Arg Gln Glu Ile Tyr Thr Cys Cys
 50 55 60
 Leu Ala Phe Val Val Ile Tyr Thr Asn Glu Asn Met Tyr Tyr Ser Tyr
 65 70 75 80
 Ile

<210> 589
 <211> 157
 <212> PRT
 <213> Homo sapiens

<400> 589
 Met Thr Met Cys Leu Cys Val Ala Pro Met Gly Arg Ala Thr Arg Met
 5 10 15
 Ser Val Thr Cys Asp Arg Leu His Ala Asn Ser Arg Val Arg Tyr Leu
 20 25 30
 Trp Cys Gln Lys Asp His Val Pro Gln Met Gln Asp Gln Asp Leu Glu
 35 40 45
 Met Glu Ser Met Lys Ala Leu Glu Lys Leu Val Lys Arg Arg His Pro
 50 55 60
 Pro Val Ile Phe Ala Ser Leu Val Gln Asn Val Thr Lys Met Pro Arg
 65 70 75 80
 Met Ser Gly Val Cys Val Ile Leu Thr Val Leu Lys Pro Thr Ser Ile
 85 90 95
 Pro Ser Ala Leu Leu Met Gly Asn Leu Met Ile Met His Ala Lys Ser
 100 105 110
 Lys Lys His Arg Val Arg Asn Arg Arg Lys Leu Lys Ser Cys Leu Trp
 115 120 125
 Val Asp Val Lys Ile Thr Gln Leu Gln Leu Leu Ser Leu Lys Met Gly
 130 135 140
 Ile Met Gln Glu Gln Ile Met Gln Arg Met Leu Thr Asn
 145 150 155

<210> 590
 <211> 347
 <212> PRT
 <213> Homo sapiens

<400> 590
 Met Leu Leu Ile Val Ala Arg Pro Val Lys Leu Ala Ala Phe Pro Thr
 5 10 15

Ser Leu Ser Asp Cys Gln Thr Pro Thr Gly Trp Asn Cys Ser Gly Tyr
 20 25 30
 Asp Asp Arg Glu Asn Asp Leu Phe Leu Cys Asp Thr Asn Thr Cys Lys
 35 40 45
 Phe Asp Gly Glu Cys Leu Arg Ile Gly Asp Thr Val Thr Cys Val Cys
 50 55 60
 Gln Phe Lys Cys Asn Asn Asp Tyr Val Pro Val Cys Gly Ser Asn Gly
 65 70 75 80
 Glu Ser Tyr Gln Asn Glu Cys Tyr Leu Arg Gln Ala Ala Cys Lys Gln
 85 90 95
 Gln Ser Glu Ile Leu Val Val Ser Glu Gly Ser Cys Ala Thr Asp Ala
 100 105 110
 Gly Ser Gly Ser Gly Asp Gly Val His Glu Gly Ser Gly Glu Thr Ser
 115 120 125
 Gln Lys Glu Thr Ser Thr Cys Asp Ile Cys Gln Phe Gly Ala Glu Cys
 130 135 140
 Asp Glu Asp Ala Glu Asp Val Trp Cys Val Cys Asn Ile Asp Cys Ser
 145 150 155 160
 Gln Thr Asn Phe Asn Pro Leu Cys Ala Ser Asp Gly Lys Ser Tyr Asp
 165 170 175
 Asn Ala Cys Gln Ile Lys Glu Ala Ser Cys Gln Lys Gln Glu Lys Ile
 180 185 190
 Glu Val Met Ser Leu Gly Arg Cys Gln Asp Asn Thr Thr Thr Thr Thr
 195 200 205
 Lys Ser Glu Asp Gly His Tyr Ala Arg Thr Asp Tyr Ala Glu Asn Ala
 210 215 220
 Asn Lys Leu Glu Glu Ser Ala Arg Glu His His Ile Pro Cys Pro Glu
 225 230 235 240
 His Tyr Asn Gly Phe Cys Met His Gly Lys Cys Glu His Ser Ile Asn
 245 250 255
 Met Gln Glu Pro Ser Cys Arg Cys Asp Ala Gly Tyr Thr Gly Gln His
 260 265 270
 Cys Glu Lys Lys Asp Tyr Ser Val Leu Tyr Val Val Pro Gly Pro Val
 275 280 285
 Arg Phe Gln Tyr Val Leu Ile Ala Ala Val Ile Gly Thr Ile Gln Ile
 290 295 300
 Ala Val Ile Cys Val Val Val Leu Cys Ile Thr Arg Lys Cys Pro Arg
 305 310 315 320

Ser Asn Arg Ile His Arg Gln Lys Gln Asn Thr Gly His Tyr Ser Ser
325 330 335

Asp Asn Thr Thr Arg Ala Ser Thr Arg Leu Ile
340 345

<210> 591

<211> 565

<212> DNA

<213> Homo sapien

<400> 591

actaaagcaa	atgaacaagc	tgaattgcta	gtatcattcg	cattcattga	agacacaagaa	60
cttctatgct	tgaatcatgt	aaatgcaata	ggattaaaaa	ataaatttga	tatcacatgg	120
aaacagacaa	aaaattattg	acaaacattg	acccagtgtc	agattctaca	ccctggccact	180
caggaaagcaa	gagttaatcc	cagaggtcta	tgctctaatg	tggtatggca	aatggatgtc	240
atgcacgtac	cttcatttgg	aaaattgtca	tttgtccatg	tgacagttga	tactatttca	300
cattctat	gggcaacctg	ccagacagga	gaagttactt	cccatgttaa	agacatttca	360
ttatcttgtt	ttctctgat	gggagttcca	gaasagttta	aaacagacaa	tgggccaggt	420
tacttagta	agcatttca	aaaattctta	aatcagtgga	aaattacaa	tacaatagga	480
attctctata	attcccaagg	acaggccata	attgaaggaa	ctaatagaac	actcaaaagt	540
caattggtta	aacaaaaaaa	aaaaa				565

<210> 592

<211> 189

<212> FRT

<213> Homo sapien

<400> 592

Thr	Lys	Ala	Asn	Glu	Gln	Ala	Asp	Leu	Leu	Val	Ser	Ser	Ala	Phe	Ile
1			5					10					15		
Glu	Ala	Gln	Glu	Leu	His	Ala	Leu	Thr	His	Val	Asn	Ala	Ile	Gly	Leu
			20				25					30			
Lys	Asn	Lys	Phe	Asp	Ile	Thr	Trp	Lys	Gln	Thr	Lys	Asn	Ile	Val	Gln
		35					40					45			
His	Cys	Thr	Gln	Cys	Gln	Ile	Leu	His	Leu	Ala	Thr	Gln	Glu	Ala	Arg
		50				55					60				
Val	Asn	Pro	Arg	Gly	Leu	Cys	Pro	Asn	Val	Leu	Trp	Gln	Met	Asp	Val
			70						75				80		
Met	His	Val	Pro	Ser	Phe	Gly	Lys	Leu	Ser	Phe	Val	His	Val	Thr	Val
			85						90				95		
Asp	Thr	Tyr	Ser	His	Phe	Ile	Trp	Ala	Thr	Cys	Gln	Thr	Gly	Glu	Ser
		100						105					110		
Thr	Ser	His	Val	Lys	Arg	His	Leu	Leu	Ser	Cys	Phe	Pro	Val	Met	Gly
		115					120					125			
Val	Pro	Glu	Lys	Val	Lys	Thr	Asp	Asn	Gly	Pro	Gly	Tyr	Cys	Ser	Lys
		130					135					140			
Ala	Phe	Gln	Lys	Phe	Leu	Asn	Gln	Trp	Lys	Ile	Thr	His	Thr	Ile	Gly
		145					150					155			160
Ile	Leu	Tyr	Asn	Ser	Gln	Gly	Gln	Ala	Ile	Ile	Glu	Gly	Thr	Asn	Arg
			165					170						175	
Thr	Leu	Lys	Ala	Gln	Leu	Val	Lys	Gln	Lys	Lys					
			180					185							

<210> 593

<211> 271

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<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(271)
<223> n = A,T,C or G

<400> 593
acttttatgtt cnagtgcana aanechoctg gattgccaac ntactotcag ggotgtgant      60
tggtcnccca nagcaacotg ggcacgcggg gacagggggg cncacaattg agggagcggt      120
gtccctagct ggggtctata catgnonggg naagggcngc ttagtnccat nagcaagga      180
nctagmatnt ggggggggtg ggcotggggc taccctttta agcatccntn gatecactce      240
angaancng gggtagncag gtttaccac a                               271

<210> 594
<211> 376
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(376)
<223> n = A,T,C or G

<400> 594
cetttggggg nggggggaac ctttaccatt gtncccttt atttcatttg gtnngggttc      60
gogccctcnr gggcnaacaa agttctcgtt nttgaagaga anattttttt ggnatngnce      120
cgattaaagc acaaatgtgt agcaaaangc cgtgccactt gtggcgttagc tncgtcgggt      180
cgattcgagc acaaggcgtn gogcgttanc gttagtctcn aatngacccn gtggcatgag      240
cccacgaggg attcgtgtcg tcacatggnc tctagacata acgcacnccn ttttttacag      300
agggggnctg ggccttagg gaggnagggg tggggacact agccaancca nantctnacc      360
ccattgaaga aaagga                                           376

<210> 595
<211> 242
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(242)
<223> n = A,T,C or G

<400> 595
agnotgtgtn togtncocctn tatgtggctt catnntgagg acaanagtn caetgaggett      60
tgnnratgcc aggcasggnc aagctggctc aaaaagcctc caccocctb tgnaaagggg      120
atgccangag cangtgcacc agtcccaact angagncccn ggcattgtac stctctctcc      180
accocnnaaa atttngctc caangnccat ttttattttt ctettaaggg ncnctnbggt      240
tc

<210> 596
<211> 535
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature

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<222> (1)...(535)

<223> n = A,T,C or G

<400> 596

accagtttggg	tactgctaaa	nagatatttta	tgcagcctca	tatgttasgt	cgtatatftt	60
gaaagctttt	taaatttttt	ctttaagaag	attttagatg	cttatocactg	agtaccagag	120
ggatgtaggc	tgatgcocct	atcaacaaag	tcaggggactg	tggcacacaa	ggattgacta	180
ctgcagacac	ggccacaaatg	ctacctctag	agggcctgaa	tcccccctgcc	ctctctgggtg	240
gggagaaggg	ctggcagagc	cattagcatg	ggctccggcc	aatccctggcc	actttgacac	300
tctgtgtgct	gaocccaggt	cctggaggaa	gggatgaggt	gggcagtaga	gatgctcagg	360
gcagtgcccc	ctttccatcc	acactgggac	tatttcagta	ttttaccacc	aattcagcca	420
ttcccttgtg	cgctggctga	acatccagccc	tgtccaggt	ctcagtttcc	cotttgtaaa	480
gggaagctc	tggattcagg	gagtgatgaa	gaggtcatca	tggctctgag	aatc	535

<210> 597

<211> 257

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(257)

<223> n = A,T,C or G

<400> 597

tttenatacc	caaaantacc	ccatattang	accanacatt	tgtctnggaa	aaattaocat	60
tntntaact	ttgggcccac	tgagannaaa	tgggtgtaat	ncatgataag	atggancagn	120
attntcttta	agatnnngat	agaccccggt	tttcacggaa	catatccaa	nacccaatag	180
gnaacaagcc	acggggggag	tcacaaacat	atatctctta	ctctcataat	cctgnncaca	240
naactnttgn	acttgac					257

<210> 598

<211> 222

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(222)

<223> n = A,T,C or G

<400> 598

nttgntacc	gtanaaactt	nncttggtac	ccgagctcgg	atccactagt	ccagttgtgt	60
ggatttccat	tgtgttgggc	tataagctgt	aatagtggag	ncgtgtctngg	ttcattgcan	120
nagncctcc	gcannacac	ttgmnacac	ctgtgagnag	gcnataaatt	atccacataa	180
tcactactgc	atgaacttga	ctcaaacgca	tcacntaca	cc		222

<210> 599

<211> 238

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(238)

<223> n = A,T,C or G

<400> 599

gcactgacatc	ancgatgtnt	ttggnnacct	gansttngct	aaaactngng	natgcggggn	60
atgnaggttt	ggtantgato	tatgcactca	catctcatgg	ggacgtttcc	tgtggagtg	120
togacaangt	tgcignanch	gagaagtgat	gatctcagtt	gaaagggtca	tgtgaataca	180
cmttaccctt	gaaaaagaag	cacattggga	atatcacgaa	acgncacca	acatccgt	238

<210> 600

<211> 232

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(232)

<223> n = A,T,C or G

<400> 600

ogaactattt	agactaccta	ggaaaattat	tttagtatca	gaagaatata	aggggtgtag	60
tactaatcag	agctaaatga	gagcgcttta	aaaatgttag	tctgtcttcc	gccatttcta	120
caggaagctg	caattttcag	ttttcacctt	aataggtagt	atttaaaaa	aaaaaaaagc	180
astcgcaaat	agccccactg	cttttccaaa	tcattttttc	cccaacacaa	tg	232

<210> 601

<211> 547

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(547)

<223> n = A,T,C or G

<400> 601

catttgtttg	gggaaaaaat	gatttgtata	agcagtgagg	ctatttgcga	tgtctttttt	60
ttttctctaa	atatcaccta	ttagggttga	aacctgaast	tgcagctttc	tgtagaastg	120
ggggagagca	aactaacatt	tttaaaagcg	tctcatttag	ctctgatgag	tactacaccc	180
ctnatattct	tctgatacta	aaataatttt	ctcagtgtag	tctaaacttt	tttaaaaaga	240
catgtaattc	ggggagtttag	taactcaaaa	cgagtgcate	tnggaaglat	cgagcccggt	300
ncgtgatnaa	attccacgct	tgcctngctg	ctnagccggg	gggcggtnaa	aaaaacatct	360
gcagcccong	ggnaaaaaac	ttcgcattgt	tcttactgtt	ttactgttct	ttattkccct	420
nnagcaaggg	nggganttgg	ggactcgaaa	tgtacagatt	gggctggggg	tgcgcttctg	480
tacataaaa	ngctccagaa	gggggagcgt	tacagcgngg	ganctccaaa	ggtoagttcc	540
tgccatt						547

<210> 602

<211> 826

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(826)

<223> n = A,T,C or G

<400> 602

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gaacatagcg	aaagcgtttt	cttccctag	ctgcagattg	tcttcttcc	cgccctctgt	180
tagctagcta	gctagctggg	aatttaatcc	agaaacggct	tgcgatacct	ctgatagcca	240

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ctcgttttga gttacaaact ccgcggatta catgtctttt taaaaaagtt tagactacac 300
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caggttttca nccataatagg tgatatntaa gaaaaaaaaa acaatcgcan atagcccact 480
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ttaagtgggg atttatgtat ttctcaanca agtgattaaa gcaaaactag gcacgaatga 660
aatcaagatc tttaggcagc aaatcatgaa nantttana atbattctan gaatcgtggc 720
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<210> 603

<211> 817

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(817)

<223> n = A,T,C or G

<400> 603

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<210> 604

<211> 694

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(694)

<223> n = A,T,C or G

<400> 604

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aaatcagagt cttttagcca anaaagtcac gatgagtttt agsattattt taggaotctg 240
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<210> 605
<211> 678
<212> DNA
<213> Homo sapien

<220>
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<222> {1}...(678)
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aaaaccacaa aaggtctctg atagcccaaa gcaacactga acaaaagaa caagcgagga      540
agcaacacac taacgggaatt caattatact acaaggtgt antaaccaaa acagcattct      600
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cctatattta cngccccc                                678

<210> 606
<211> 263
<212> DNA
<213> Homo sapien

<220>
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<222> {1}...(263)
<223> n = A,T,C or G

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agtgcacana ctgtcccca ctgaggtgcc cccagcngn ttgnttcag cangggctna      180
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ngccgcagga aggangacag gcc                                263

<210> 607
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 607
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<210> 608
<211> 22
<212> DNA

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<213> Artificial Sequence

<220>

<223> Primer

<400> 608

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22

<210> 609

<211> 40

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 609

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40

<210> 610

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 610

cottgtccag atagcccagc agctgac

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<210> 611

<211> 46

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 611

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46

<210> 612

<211> 40

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 612

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40

<210> 613

<211> 38

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 613

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38

<210> 614

<211> 53

<212> DNA

<213> Artificial Sequence

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<223> Primer

<400> 614

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<210> 615

<211> 46

<212> DNA

<213> Artificial Sequence

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<223> Primer

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45

<210> 616

<211> 1350

<212> DNA

<213> Homo sapien

<400> 616

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1350

<210> 617

<211> 449

<212> PRT

<213> Homo sapien

<400> 617

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20     25     30
Cys Ser Gly Val Leu Val His Pro Gln Trp Val Leu Ser Ala Ala His
35     40     45
Cys Phe Gln Asn Ser Tyr Thr Ile Gly Leu Gly Leu His Ser Leu Glu
50     55     60
Ala Asp Gln Glu Pro Gly Ser Gln Met Val Glu Ala Ser Leu Ser Val
65     70     75
Arg His Pro Glu Tyr Asn Arg Pro Leu Leu Ala Asn Asp Leu Met Leu
85     90     95
Ile Lys Leu Asp Glu Ser Val Ser Glu Ser Asp Thr Ile Arg Ser Ile
100    105    110
Ser Ile Ala Ser Gln Cys Pro Thr Ala Gly Asn Ser Cys Leu Val Ser
115    120    125
Gly Trp Gly Leu Leu Ala Asn Gly Arg Met Pro Thr Val Leu Gln Cys
130    135    140
Val Asn Val Ser Val Val Ser Glu Glu Val Cys Ser Lys Leu Tyr Asp
145    150    155
Pro Leu Tyr His Pro Ser Met Phe Cys Ala Gly Gly Gln Asp Gln
165    170    175
Lys Asp Ser Cys Asn Gly Asp Ser Gly Gly Pro Leu Ile Cys Asn Gly
180    185    190
Tyr Leu Gln Gly Leu Val Ser Phe Gly Lys Ala Pro Cys Gly Gln Val
195    200    205
Gly Val Pro Gly Val Tyr Thr Asn Leu Cys Lys Phe Thr Glu Trp Ile
210    215    220
Glu Lys Thr Val Gln Ala Ser Ile Val Gly Gly Trp Glu Cys Glu Lys
225    230    235
His Ser Gln Pro Trp Gln Val Leu Val Ala Ser Arg Gly Arg Ala Val
245    250    255
Cys Gly Gly Val Leu Val His Pro Gln Trp Val Leu Thr Ala Ala His
260    265    270
Cys Ile Arg Asn Lys Ser Val Ile Leu Leu Gly Arg His Ser Leu Phe
275    280    285
His Pro Glu Asp Thr Gly Gln Val Phe Gln Val Ser His Ser Phe Pro
290    295    300
His Pro Leu Tyr Asp Met Ser Leu Leu Lys Asn Arg Phe Leu Arg Pro
305    310    315
Gly Asp Asp Ser Ser His Asp Leu Met Leu Leu Arg Leu Ser Glu Pro
325    330    335
Ala Glu Leu Thr Asp Ala Val Lys Val Met Asp Leu Pro Thr Gln Glu
340    345    350
Pro Ala Leu Gly Thr Thr Cys Tyr Ala Ser Gly Trp Gly Ser Ile Glu
355    360    365
Pro Glu Glu Phe Leu Thr Pro Lys Lys Leu Gln Cys Val Asp Leu His
370    375    380
Val Ile Ser Asn Asp Val Cys Ala Gln Val His Pro Gln Lys Val Thr
385    390    395
Lys Phe Met Leu Cys Ala Gly Arg Trp Thr Gly Gly Lys Ser Trp Gly
405    410    415
Ser Glu Pro Cys Ala Leu Pro Glu Arg Pro Ser Leu Tyr Thr Lys Val

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Val His Tyr Arg Lys Trp Ile	Lys Asp Thr Ile	Val Ala Asn Pro Glu			
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Phe					

<210> 618
 <211> 3923
 <212> DNA
 <213> Homo sapien

<400> 618
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<210> 619

<211> 3674

<212> DNA

<213> Homo sapien

<400> 619

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<211> 2051

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (2051)

<223> n = A,T,C or G

<400> 620

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<210> 621

<211> 2841

<212> DNA

<213> Homo sapien

<220>

<221> misc feature

<222> (1)... (2841)

<223> n = A,T,C or G

<400> 621

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<211> 3228

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> [1]...{3228}

<223> n = A,T,C or G

<400> 622

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<211> 4894

<212> DNA

<213> Homo sapiens

<400> 623

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<213> Homo sapiens

<400> 627

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Leu Ser His Ser Val Ala Val Val Thr Ala Ser Ala Ala Leu Thr Gly
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Phe Thr Phe Ser Ala Leu Gln Ile Leu Pro Tyr Thr Leu Ala Ser Leu
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Tyr His Arg Glu Lys Gln Val Leu Ile Gly Gln Trp Val Glu Ser Gly
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Trp Glu Gly Trp Ser Gly Phe Leu Gly Gly Gln Leu Ala Gln Asn Leu
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Val Ser Gly Lys Gln Leu Trp Arg Met Leu Leu
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Ala Ala Gly Ile Thr Tyr Val Pro Pro Leu Leu Leu Gln Val Gly Val
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Glu Gln Lys Phe Met Thr Met Val Leu Gly Glu Ser Leu His Pro Pro
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Ser Phe Leu Phe Gln Ile His Ala Thr Trp His Val Gly Gln Glu Tyr
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Leu Cys Pro Gly Ser Cys Leu Glu Gly Glu Val Val Cys Trp Glu Gly
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Ile Ala Gly Gln Glu Gly Asp Pro Gly Leu Arg Gly His Thr Lys Arg
100 105 110

Lys Lys Arg Ile Pro Arg Thr Tyr Pro Ser His Leu Trp Ile Pro Gly
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Pro Ala Gln Ser Leu Ala His Arg Arg His Trp Arg Asn Ala Pro Asn
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Leu Trp Leu Ala Leu Leu
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<211> 371

<212> PRT

<213> Homo sapiens

<400> 629

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Leu Tyr Leu Ser Gln Pro Leu Thr His Thr Thr Ser Leu Leu Ala Gly
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35 40 45

Ser Asp His Trp Arg Gly Arg Tyr Gly Arg Arg Arg Pro Phe Ile Trp
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 Pro Ser Leu Ser Pro His Cys Cys Pro Cys Arg Ala Arg Leu Ala Phe
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 Arg Asn Leu Gly Ala Leu Leu Pro Arg Leu His Gln Leu Cys Cys Arg
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<212> DNA
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<400> 630

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<212> DNA

<213> Homo sapiens

<400> 631

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<213> Homo sapiens

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Gly Pro Asn Pro Ser Ile Ala Lys His Thr Leu Val Val Leu Asp Pro
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Arg Thr Pro Ser Asp His Tyr Asn Trp Gln Ala Thr Leu Gln Asn Glu
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Ser Gly Lys Glu Val Thr Val Ala Val Thr Ser Ser Pro Asn Ala Ile
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Leu Gly Lys Tyr Gln Leu Asn Val Lys Thr Gly Asn His Ile Leu Lys
          115                     120                     125

Ser Glu Glu Asn Ile Leu Tyr Leu Leu Phe Asn Pro Trp Cys Lys Glu
          130                     135                     140

Asp Met Val Phe Met Pro Asp Glu Asp Glu Arg Lys Glu Tyr Ile Leu
          145                     150                     155                     160

Asn Asp Thr Gly Cys His Tyr Val Gly Ala Ala Arg Ser Ile Lys Cys
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Lys Pro Trp Asn Phe Gly Gln Phe Glu Lys Asn Val Leu Asp Cys Cys
          180                     185                     190

Ile Ser Leu Leu Thr Glu Ser Ser Leu Lys Pro Thr Asp Arg Arg Asp
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Pro Val Leu Val Cys Arg Ala Met Cys Ala Met Met Ser Phe Glu Lys
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Gly Gln Gly Val Leu Ile Gly Asn Trp Thr Gly Asp Tyr Glu Gly Gly

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Tyr Asn Thr Lys Gln Ala Val Cys Phe Gly Gln Cys Trp Val Phe Ala			
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Gly Ile Leu Thr Thr Val Leu Arg Ala Leu Gly Ile Pro Ala Arg Ser			
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Val Thr Gly Phe Asp Ser Ala His Asp Thr Glu Arg Asn Leu Thr Val			
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Asp Thr Tyr Val Asn Glu Asn Gly Lys Lys Ile Thr Ser Met Thr His			
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Asp Ser Val Trp Asn Phe His Val Trp Thr Asp Ala Trp Met Lys Arg			
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Pro Asp Leu Pro Lys Gly Tyr Asp Gly Trp Gln Ala Val Asp Ala Thr			
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Pro Gln Glu Arg Ser Gln Gly Val Phe Cys Cys Gly Pro Ser Pro Leu			
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Thr Ala Ile Arg Lys Gly Asp Ile Phe Ile Val Tyr Asp Thr Arg Phe			
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Val Phe Ser Glu Val Asn Gly Asp Arg Leu Ile Trp Leu Val Lys Met			
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Val Asn Gly Gln Glu Glu Leu His Val Ile Ser Met Glu Thr Thr Ser			
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Ile Gly Lys Asn Ile Ser Thr Lys Ala Val Gly Gln Asp Arg Arg Arg			
420	425	430	
Asp Ile Thr Tyr Glu Tyr Lys Tyr Pro Glu Gly Ser Ser Glu Glu Arg			
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Gln Val Met Asp His Ala Phe Leu Leu Leu Ser Ser Glu Arg Glu His			
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Arg Arg Pro Val Lys Glu Asn Phe Leu His Met Ser Val Gln Ser Asp			
465	470	475	480
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Lys Thr Ala Ala Leu Gln Asn Val Asn Ile Leu Gly Ser Phe Glu Leu			
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Gln Leu Tyr Thr Gly Lys Lys Met Ala Lys Leu Cys Asp Leu Asn Lys			
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Thr Ser Gln Ile Gln Gly Gln Val Ser Glu Val Thr Leu Thr Leu Asp			
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Ser Lys Thr Tyr Ile Asn Ser Leu Ala Ile Leu Asp Asp Glu Pro Val
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 Ala Ser Glu Val Phe Thr Ser Phe Gln Tyr Pro Glu Phe Ser Ile Glu
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 Gln Pro Gly Glu Thr Ile Gln Ser Gln Ile Lys Cys Thr Pro Ile Lys
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 85 90 95
 Ser Gly Lys Glu Val Thr Val Ala Val Thr Ser Ser Pro Asn Ala Ile
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 Leu Gly Lys Tyr Gln Leu Asn Val Lys Thr Gly Asn His Ile Leu Lys
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Ser Glu Glu Asn Ile Leu Tyr Leu Leu Phe Asn Pro Trp Cys Lys Glu
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 Asp Met Val Phe Met Pro Asp Glu Asp Glu Arg Lys Glu Tyr Ile Leu
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 Lys Pro Trp Asn Phe Gly Gln Phe Glu Lys Asn Val Leu Asp Cys Cys
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 Pro Val Leu Val Cys Arg Ala Met Cys Ala Met Met Ser Phe Glu Lys
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 Gly Gln Gly Val Leu Ile Gly Asn Trp Thr Gly Asp Tyr Glu Gly Gly
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 Val Thr Gly Phe Asp Ser Ala His Asp Thr Glu Arg Asn Leu Thr Val
 290 295 300
 Asp Thr Tyr Val Asn Glu Asn Gly Glu Lys Ile Thr Ser Met Thr His
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 Asp Ser Val Trp Asn Phe His Val Trp Thr Asp Ala Trp Met Lys Arg
 325 330 335
 Pro Tyr Asp Gly Trp Gln Ala Val Asp Ala Thr Pro Gln Glu Arg Ser
 340 345 350
 Gln Gly Val Phe Cys Cys Gly Pro Ser Pro Leu Thr Ala Ile Arg Lys
 355 360 365
 Gly Asp Ile Phe Ile Val Tyr Asp Thr Arg Phe Val Phe Ser Glu Val
 370 375 380
 Asn Gly Asp Arg Leu Ile Trp Leu Val Lys Met Val Asn Gly Gln Glu
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 Glu Leu His Val Ile Ser Met Glu Thr Thr Ser Ile Gly Lys Asn Ile
 405 410 415
 Ser Thr Lys Ala Val Gly Gln Asp Arg Arg Arg Asp Ile Thr Tyr Glu
 420 425 430
 Tyr Lys Tyr Pro Glu Gly Ser Ser Glu Glu Arg Glu Val Met Asp His

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Ala Phe Leu Leu Leu Ser Ser Glu Arg Glu His Arg Gln Pro Val Lys		
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Glu Asn Phe Leu His Met Ser Val Gln Ser Asp Val Leu Leu Gly		
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Asn Ser Val Asn Phe Thr Val Ile Leu Lys Arg Lys Thr Ala Ala Leu		
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Gln Asn Val Asn Ile Leu Gly Ser Phe Glu Leu Gln Leu Tyr Thr Gly		
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Lys Lys Met Ala Lys Leu Cys Asp Leu Asn Lys Thr Ser Gln Ile Gln		
515	520	525
Gly Gln Val Ser Glu Val Thr Leu Thr Leu Asp Ser Lys Thr Tyr Ile		
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Asn Ser Leu Ala Ile Leu Asp Asp Glu Pro Val Ile Arg Gly Phe Ile		
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Ile Ala Glu Ile Val Glu Ser Lys Glu Ile Met Ala Ser Glu Val Phe		
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Thr Ser Asn Gln Tyr Pro Glu Phe Ser Ile Glu Leu Pro Asn Thr Gly		
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Arg Ile Gly Gln Leu Leu Val Cys Asn Cys Ile Phe Lys Asn Thr Leu		
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Ala Ile Pro Leu Thr Asp Val Lys Phe Ser Leu Glu Ser Leu Gly Ile		
610	615	620
Ser Ser Leu Gln Thr Ser Asp His Gly Thr Val Gln Pro Gly Glu Thr		
625	630	635
Ile Gln Ser Gln Ile Lys Cys Thr Pro Ile Lys Thr Gly Pro Lys Lys		
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<212> DNA

<213> Homo sapiens

<400> 634

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<212> PRT

<213> Homo sapiens

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Ser Ser Ala Ser Arg Ser Thr Asp Leu Ser Tyr Ser Glu Ser Asp Leu
          20                      25                      30

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Val Asn Phe Ile Gln Ala Asn Phe Lys Lys Arg Glu Cys Val Phe Phe
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Thr Lys Asp Ser Lys Ala Thr Glu Asn Val Cys Lys Cys Gly Tyr Ala
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Gln Ser Gln His Met Glu Gly Thr Gln Ile Asn Gln Ser Glu Lys Trp
          65                      70                      75                      80

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Asn Tyr Lys Lys His Thr Lys Glu Phe Pro Thr Asp Ala Phe Gly Asp
          85                      90                      95

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 Cys Asp Thr Asp Ala Glu Ile Leu Tyr Glu Leu Leu Thr Gln His Trp
 115 120 125
 His Leu Lys Thr Pro Asn Leu Val Ile Ser Val Thr Gly Gly Ala Lys
 130 135 140
 Asn Phe Ala Leu Lys Pro Arg Met Arg Lys Ile Phe Ser Arg Leu Ile
 145 150 155 160
 Tyr Ile Ala Gln Ser Lys Gly Ala Trp Ile Leu Thr Gly Gly Thr His
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 Tyr Gly Leu Thr Lys Tyr Ile Gly Glu Val Val Arg Asp Asn Thr Ile
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 Ser Arg Ser Ser Glu Glu Asn Ile Val Ala Ile Gly Ile Ala Ala Trp
 195 200 205
 Gly Met Val Ser Asn Arg Asp Thr Leu Ile Arg Asn Cys Asp Ala Glu
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 Gly Tyr Phe Leu Ala Gln Tyr Leu Met Asp Asp Phe Thr Arg Asp Pro
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 Leu Tyr Ile Leu Asp Asn Asn His Thr His Leu Leu Leu Val Asp Asn
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 Glu Gly Ser Gly Arg Ile Ala Asp Val Ile Ala Ser Leu Val Glu Val
 325 330 335
 Glu Asp Ala Pro Thr Ser Ser Ala Val Lys Glu Lys Leu Val Arg Phe
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 Ile Lys Trp Leu Lys Glu Ile Leu Glu Cys Ser His Leu Leu Thr Val
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Tyr Ala Leu Tyr Lys Ala Phe Ser Thr Ser Glu Gln Asp Lys Asp Asn
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 Glu Asp Arg Asn Gly Arg Asp Glu Met Asp Ile Glu Leu His Asp Val
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 Ser Pro Ile Thr Arg His Pro Leu Gln Ala Leu Phe Ile Trp Ala Ile
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 Leu Gln Asn Lys Lys Glu Leu Ser Lys Val Ile Trp Glu Gln Thr Arg
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 580 585 590
 Ala Lys Val Lys Asn Asp Ile Asn Ala Ala Gly Glu Ser Glu Glu Leu
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 Ala Asn Glu Tyr Glu Thr Arg Ala Val Glu Leu Phe Thr Glu Cys Tyr
 610 615 620
 Ser Ser Asp Glu Asp Leu Ala Glu Gln Leu Leu Val Tyr Ser Cys Glu
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 Ala Trp Gly Gly Ser Asn Cys Leu Glu Leu Ala Val Glu Ala Thr Asp
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 Gln His Phe Thr Ala Gln Pro Gly Val Gln Asn Phe Leu Ser Lys Gln
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 Lys Lys Pro Val Asp Lys His Lys Lys Leu Leu Trp Tyr Tyr Val Ala

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Ser Val Pro His Pro Pro Glu Leu Val Leu Tyr Ser Leu Val Phe Val			
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Leu Phe Cys Asp Glu Val Arg Gln Trp Tyr Val Asn Gly Val Asn Tyr			
770	775		780
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Tyr Ser Gly Arg Val Ile Phe Cys Leu Asp Tyr Ile Ile Phe Thr Leu			
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885	890		895
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Thr Thr Tyr Asp Phe Ala His Cys Thr Phe Thr Gly Asn Glu Ser Lys			
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Pro Leu Cys Val Glu Leu Asp Glu His Asn Leu Pro Arg Phe Pro Glu			
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Trp Ile Thr Ile Pro Leu Val Cys Ile Tyr Met Leu Ser Thr Asn Ile			
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Val Gln Glu Tyr Cys Ser Arg Leu Asn Ile Pro Phe Pro Phe Ile Val			
995	1000		1005
Phe Ala Tyr Phe Tyr Met Val Val Lys Lys Cys Phe Lys Cys Cys Cys			
1010	1015		1020

Lys Glu Lys Asn Met Glu Ser Ser Val Cys Cys Phe Lys Asn Glu Asp
1025 1030 1035 1040

Asn Glu Thr Leu Ala Trp Glu Gly Val Met Lys Glu Asn Tyr Leu Val
1045 1050 1055

Lys Ile Asn Thr Lys Ala Asn Asp Thr Ser Glu Glu Met Arg His Arg
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Phe Arg Gln Leu Asp Thr Lys Leu Asn Asp Leu Lys Gly Leu Leu Lys
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Glu Ile Ala Asn Lys Ile Lys
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<210> 636
<211> 3639
<212> DNA
<213> Homo sapiens

<400> 636
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tctcggagca cagacttgct ttacagtgaa agcgacttgg tgaattttat tcaagcaaat 240
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<210> 637

<211> 1095

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> (1)...(1095)

<223> Xaa = Any Amino Acid

<400> 637

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Ser Ser Ala Ser Arg Ser Thr Asp Leu Ser Tyr Ser Glu Ser Asp Leu
      20                      25                      30

```

```

Val Asn Phe Ile Gln Ala Asn Phe Lys Lys Arg Glu Cys Val Phe Phe
      35                      40                      45

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Thr Lys Asp Ser Lys Ala Thr Glu Asn Val Cys Lys Cys Gly Tyr Ala
      50                      55                      60

```

```

Gln Ser Gln His Met Glu Gly Thr Gln Ile Asn Gln Ser Glu Lys Trp
      65                      70                      75                      80

```

```

Asn Tyr Lys Lys His Thr Lys Glu Phe Pro Thr Asp Ala Phe Gly Asp
      85                      90                      95

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Ile Gln Phe Glu Thr Leu Gly Lys Lys Gly Lys Tyr Ile Arg Len Ser

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100	105	110
Cys Asp Thr Asp Ala Glu Ile Leu Tyr Glu Leu Leu Thr Gln His Trp 115	120	125
His Leu Lys Thr Pro Asn Leu Val Ile Ser Val Thr Gly Gly Ala Lys 130	135	140
Asn Phe Ala Leu Lys Pro Arg Met Arg Lys Ile Phe Ser Arg Leu Ile 145	150	155
Tyr Ile Ala Gln Ser Lys Gly Ala Trp Ile Leu Thr Gly Gly Thr His 165	170	175
Tyr Gly Leu Met Lys Tyr Ile Gly Glu Val Val Arg Asp Asn Thr Ile 180	185	190
Ser Arg Ser Ser Glu Glu Asn Ile Val Ala Ile Gly Ile Ala Ala Trp 195	200	205
Gly Met Val Ser Asn Arg Asp Thr Leu Ile Arg Asn Cys Asp Ala Glu 210	215	220
Gly Tyr Phe Leu Ala Gln Tyr Leu Met Asp Asp Phe Thr Arg Asp Pro 225	230	235
Leu Tyr Ile Leu Asp Asn Asn His Thr His Leu Leu Leu Val Asp Asn 245	250	255
Gly Cys His Gly His Pro Thr Val Glu Ala Lys Leu Arg Asn Gln Leu 260	265	270
Glu Lys Tyr Ile Ser Glu Arg Thr Ile Gln Asp Ser Asn Tyr Gly Gly 275	280	285
Lys Ile Pro Ile Val Cys Phe Ala Gln Gly Gly Gly Lys Glu Thr Leu 290	295	300
Lys Ala Ile Asn Thr Ser Ile Lys Asn Lys Ile Pro Cys Val Val Val 305	310	315
Glu Gly Ser Gly Gln Ile Ala Asp Val Ile Ala Ser Leu Val Glu Val 325	330	335
Glu Asp Ala Leu Thr Ser Ser Ala Val Lys Glu Lys Leu Val Arg Phe 340	345	350
Leu Pro Arg Thr Val Ser Arg Leu Pro Glu Glu Glu Thr Glu Ser Trp 355	360	365
Ile Lys Trp Leu Lys Glu Ile Leu Glu Cys Ser His Leu Leu Thr Val 370	375	380
Ile Lys Met Glu Glu Ala Gly Asp Glu Ile Val Ser Asn Ala Ile Ser 385	390	395
Tyr Ala Leu Tyr Lys Ala Phe Ser Thr Ser Glu Gln Asp Lys Asp Asn 405	410	415

Trp Asn Gly Gln Leu Lys Leu Leu Leu Glu Trp Asn Gln Leu Asp Leu
 420 425 430
 Ala Asn Asp Glu Ile Phe Thr Asn Asp Arg Arg Trp Glu Ser Ala Asp
 435 440 445
 Leu Gln Glu Val Met Phe Thr Ala Leu Ile Lys Asp Arg Pro Lys Phe
 450 455 460
 Val Arg Leu Phe Leu Glu Asn Gly Leu Asn Leu Arg Lys Phe Leu Thr
 465 470 475 480
 His Asp Val Leu Thr Glu Leu Phe Ser Asn His Phe Ser Thr Leu Val
 485 490 495
 Tyr Arg Asn Leu Gln Ile Ala Lys Asn Ser Tyr Asn Asp Ala Leu Leu
 500 505 510
 Thr Phe Val Trp Lys Leu Val Ala Asn Phe Arg Arg Gly Phe Arg Lys
 515 520 525
 Glu Asp Arg Asn Gly Arg Asp Glu Met Asp Ile Glu Leu His Asp Val
 530 535 540
 Ser Pro Ile Thr Arg His Pro Leu Gln Ala Leu Phe Ile Trp Ala Ile
 545 550 555 560
 Leu Gln Asn Lys Lys Glu Leu Ser Lys Val Ile Trp Glu Gln Thr Arg
 565 570 575
 Gly Cys Thr Leu Ala Ala Leu Gly Ala Ser Lys Leu Leu Lys Thr Leu
 580 585 590
 Ala Lys Val Lys Asn Asp Ile Asn Ala Ala Gly Glu Ser Glu Glu Leu
 595 600 605
 Ala Asn Glu Tyr Glu Thr Arg Ala Val Glu Leu Phe Thr Glu Cys Tyr
 610 615 620
 Ser Ser Asp Glu Asp Leu Ala Glu Gln Leu Leu Val Tyr Ser Cys Glu
 625 630 635 640
 Ala Trp Gly Gly Ser Asn Cys Leu Glu Leu Ala Val Glu Ala Thr Asp
 645 650 655
 Gln His Phe Ile Ala Gln Pro Gly Val Gln Asn Phe Leu Ser Lys Gln
 660 665 670
 Trp Tyr Gly Glu Ile Ser Arg Asp Thr Lys Asn Trp Lys Ile Ile Leu
 675 680 685
 Cys Leu Phe Ile Ile Pro Leu Val Gly Cys Gly Phe Val Ser Phe Arg
 690 695 700
 Lys Lys Pro Val Asp Lys His Lys Lys Leu Leu Trp Tyr Tyr Val Ala
 705 710 715 720

Phe Phe Thr Ser Pro Phe Val Val Phe Ser Trp Asn Val Val Phe Tyr
 725 730 735
 Ile Ala Phe Leu Leu Phe Ala Tyr Val Leu Leu Met Asp Phe His
 740 745 750
 Ser Val Pro His Pro Pro Glu Leu Val Leu Tyr Ser Leu Val Phe Val
 755 760 765
 Leu Phe Cys Asp Gln Val Arg Gln Trp Tyr Val Asn Gly Val Asn Tyr
 770 775 780
 Phe Thr Asp Leu Trp Asn Val Met Asp Thr Leu Gly Leu Phe Tyr Phe
 785 790 795 800
 Ile Ala Gly Ile Val Phe Arg Leu His Ser Ser Asn Lys Ser Ser Leu
 805 810 815
 Tyr Ser Gly Arg Val Ile Phe Cys Leu Asp Tyr Ile Ile Phe Thr Leu
 820 825 830
 Arg Leu Ile His Ile Phe Thr Val Ser Arg Asn Leu Gly Pro Lys Ile
 835 840 845
 Ile Met Leu Gln Arg Met Leu Ile Asp Val Phe Phe Phe Leu Phe Leu
 850 855 860
 Phe Ala Xaa Trp Met Val Ala Phe Gly Val Ala Arg Gln Gly Ile Leu
 865 870 875 880
 Arg Gln Asn Gln Gln Arg Trp Arg Trp Ile Phe Arg Ser Val Ile Tyr
 885 890 895
 Glu Pro Tyr Leu Ala Met Phe Gly Gln Val Pro Ser Asp Val Asp Gly
 900 905 910
 Thr Thr Tyr Asp Phe Ala His Cys Thr Phe Thr Gly Asn Glu Ser Lys
 915 920 925
 Pro Leu Cys Val Glu Leu Asp Glu His Asn Leu Pro Arg Phe Pro Glu
 930 935 940
 Trp Ile Thr Ile Pro Leu Val Cys Ile Tyr Met Leu Ser Thr Asn Ile
 945 950 955 960
 Leu Leu Val Asn Leu Leu Val Ala Met Phe Gly Tyr Thr Val Gly Thr
 965 970 975
 Val Gln Glu Asn Asn Asp Gln Val Trp Lys Phe Gln Arg Tyr Phe Leu
 980 985 990
 Val Gln Glu Tyr Cys Ser Arg Leu Asn Ile Pro Phe Pro Phe Ile Val
 995 1000 1005
 Phe Ala Tyr Phe Tyr Met Val Val Lys Lys Cys Phe Lys Cys Cys Cys
 1010 1015 1020
 Lys Glu Lys Asn Met Glu Ser Ser Val Cys Cys Phe Lys Asn Glu Asp

1025		1030		1035		1040
Asn Glu Thr Leu Ala Trp	Glu Gly Val Met Lys	Glu Asn Tyr Leu Val				
	1045	1050		1055		
Lys Ile Asn Thr Lys Ala Asn Asp	Thr Ser Glu Glu Met Arg His Arg					
	1060	1065		1070		
Phe Arg Glu Leu Asp Thr Lys	Leu Asn Asp Leu Lys Gly Leu Leu Lys					
	1075	1080		1085		
Glu Ile Ala Asn Lys Ile Lys						
	1090	1095				

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<210> 638
<211> 15
<212> PRT
<213> Homo sapiens
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<406> 638
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<210> 639
<211> 45
<212> DNA
<213> Homo sapiens
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<400> 639
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<210> 640
<211> 45
<212> DNA
<213> Homo sapiens
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<400> 640
gagccaggga gccagatggt ggaaggcagc ctctccgtac ggcac 45

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<210> 641
<211> 45
<212> DNA
<213> Homo sapiens
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<400> 641
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<210> 642
<211> 45
<212> DNA
<213> Homo sapiens
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 <212> DNA
 <213> Homo sapiens

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 <210> 644
 <211> 42
 <212> DNA
 <213> Homo sapiens

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 <210> 645
 <211> 45
 <212> DNA
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 <400> 645
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 <210> 646
 <211> 45
 <212> DNA
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 <400> 646
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 <210> 647
 <211> 45
 <212> DNA
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 <210> 648
 <211> 45
 <212> DNA
 <213> Homo sapiens

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 <210> 649
 <211> 45
 <212> DNA
 <213> Homo sapiens

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 <210> 650
 <211> 51

<212> PPT

<213> Homo sapiens

<400> 657

Glu Ala Asp Gln Glu Pro Gly Ser Gln Met Val Glu Ala Ser Leu
5 10 15

<210> 658

214 13

<212> PR3

<213> Homo sapiens

<400> 658

Gly Leu His Ser Leu Glu Ala Asp Gln Glu Pro Gly Ser Gln Met
5 10 15

<210> 659

<211> 15

<212> PRT

<213> Homo sapiens

<400> 659

Fyr Thr Ile Gly Leu Gly Leu His Ser Leu Glu Ala Asp Gln Glu
 5 10 15

<210> 660

<211> 34

<212> 附錄

<213> Homo sapiens

<400> 660

Phe Gln Asn Ser Tyr Thr Ile Gly Leu Gly Leu His Ser Leu
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<210> 661

<211> 15

<212> 索引

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<400> 861

Leu Ser Ala Ala His Cys Phe Gln Asn Ser Tyr Thr Ile Gly Leu
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<210> 662

<211> 15

<212> PRT

<213> Homo sapiens

<409> 662

His Pro Gln Trp Val Leu Ser Ala Ala His Cys Phe Gln Asn Ser
5 10 15

<210> 663
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 <212> PRT
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<400> 663
 Ser Gly Val Leu Val His Pro Gln Trp Val Leu Ser Ala Ala His
 5 10 15

<210> 664
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<400> 664
 Asn Glu Leu Phe Cys Ser Gly Val Leu Val His Pro Gln Trp Val
 5 10 15

<210> 665
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<400> 665
 Ala Leu Val Met Glu Asn Glu Leu Phe Cys Ser Gly Val Leu Val
 5 10 15

<210> 666
 <211> 17
 <212> PRT
 <213> Homo sapiens

<400> 666
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Ser

<210> 667
 <211> 15
 <212> PRT
 <213> Homo sapiens

<400> 667
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 5 10 15

<210> 668
 <211> 15
 <212> PRT
 <213> Homo sapiens

<400> 668

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<211> 15

<212> PRT

<213> Homo sapiens

<400> 669

Ile	Lys	Leu	Asp	Glu	Ser	Val	Ser	Glu	Ser	Asp	Thr	Ile	Arg	Ser
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<210> 670

<211> 15

<212> PRT

<213> Homo sapiens

<400> 670

Asn	Asp	Leu	Met	Leu	Ile	Lys	Leu	Asp	Glu	Ser	Val	Ser	Glu	Ser
				5					10					15

<210> 671

<211> 15

<212> PRT

<213> Homo sapiens

<400> 671

Arg	Pro	Leu	Leu	Ala	Asn	Asp	Leu	Met	Leu	Ile	Lys	Leu	Asp	Glu
				5					10					15

<210> 672

<211> 35

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 672

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35

<210> 673

<211> 29

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 673

ccgctcaggt ccaccccaag ctccacagg

29

<210> 674
 <211> 1959
 <212> DNA
 <213> Homo sapiens

<400> 674
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 tgtgtgtatg cccagagcca gcaactggaa ggcaccocga tcaaccaaag tgagaaatgg 240
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 gctgctgggg agtcocggga gctggctaat gactacagca cccgggtctg tgagctgttc 1860
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<210> 675
 <211> 652
 <212> PRT
 <213> Homo sapiens

<400> 675
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 20 25 30
 Val Asn Phe Ile Gln Ala Asn Phe Lys Lys Arg Glu Cys Val Phe Phe
 35 40 45
 Thr Lys Asp Ser Lys Ala Thr Glu Asn Val Cys Lys Cys Gly Tyr Ala
 50 55 60

Gln Ser Gln His Met Glu Gly Thr Gln Ile Asn Gln Ser Glu Lys Trp
 65 70 75 80
 Asn Tyr Lys Lys His Thr Lys Glu Phe Pro Thr Asp Ala Phe Gly Asp
 85 90 95
 Ile Gln Phe Glu Thr Leu Gly Lys Lys Gly Lys Tyr Ile Arg Leu Ser
 100 105 110
 Cys Asp Thr Asp Ala Glu Ile Leu Tyr Glu Leu Leu Thr Gln His Trp
 115 120 125
 His Leu Lys Thr Pro Asn Leu Val Ile Ser Val Thr Gly Gly Ala Lys
 130 135 140
 Asn Phe Ala Leu Lys Pro Arg Met Arg Lys Ile Phe Ser Arg Leu Ile
 145 150 155 160
 Tyr Ile Ala Gln Ser Lys Gly Ala Trp Ile Leu Thr Gly Gly Thr His
 165 170 175
 Tyr Gly Leu Met Lys Tyr Ile Gly Glu Val Val Arg Asp Asn Thr Ile
 180 185 190
 Ser Arg Ser Ser Glu Glu Asn Ile Val Ala Ile Gly Ile Ala Ala Trp
 195 200 205
 Gly Met Val Ser Asn Arg Asp Thr Leu Ile Arg Asn Cys Asp Ala Glu
 210 215 220
 Gly Tyr Phe Leu Ala Gln Tyr Leu Met Asp Asp Phe Thr Arg Asp Pro
 225 230 235 240
 Leu Tyr Ile Leu Asp Asn Asn His Thr His Leu Leu Leu Val Asp Asn
 245 250 255
 Gly Cys His Gly His Pro Thr Val Glu Ala Lys Leu Arg Asn Gln Leu
 260 265 270
 Glu Lys Tyr Ile Ser Glu Arg Thr Ile Gln Asp Ser Asn Tyr Gly Gly
 275 280 285
 Lys Ile Pro Ile Val Cys Phe Ala Gln Gly Gly Gly Lys Gln Thr Leu
 290 295 300
 Lys Ala Ile Asn Thr Ser Ile Lys Asn Lys Ile Pro Cys Val Val Val
 305 310 315 320
 Glu Gly Ser Gly Gln Ile Ala Asp Val Ile Ala Ser Leu Val Glu Val
 325 330 335
 Glu Asp Ala Leu Thr Ser Ser Ala Val Lys Glu Lys Leu Val Arg Phe
 340 345 350
 Leu Pro Arg Thr Val Ser Arg Leu Pro Glu Glu Thr Glu Ser Trp
 355 360 365
 Ile Lys Trp Leu Lys Glu Ile Leu Glu Cys Ser His Leu Leu Thr Val